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ABSTRACT

The Minigrant Program for the Academically Gifted provided programs for more than 500 elementary and junior high school minority students in the District of Columbia, with emphasis on Title I schools. Project staff provided for uniformity through technical assistance which emphasized three characteristics: a multiple criteria selection process, a curriculum differentiated from the regular program and containing elements of critical thinking and problem solving, and staff development which was directed toward increasing proficiency in academic areas and encouraging the flexibility required for working with gifted and talented students. Project evaluation followed the Planning, Monitoring, and Implementation Model for Decision Making and included data on the agreements and discrepancies between intended and observed outcomes. Evaluation was conducted along four program objectives: (1) to provide technical assistance to insure identification of students in grades K through 6 and 7 through 9; (2) to develop and disseminate program and identification guidelines; (3) to offer technical assistance to ensure that appropriate instruction is provided to students in the content areas of mathematics and language arts; and (4) to collect and analyze data related to project goals, objectives, and activities. Appendixes contain a diagram of the evaluation model schema; a summary of the technical assistance activities; a report on identifying low income, minority, gifted, and talented students; course evaluation questions and results; and student results on reading and mathematics scales. (SB)

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MINIGRANT PROGRAM FOR THE ACADEMICALLY GIFTED- PHASE III

E. S. E. A. TITLE IV-C

Final Evaluation Report

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PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA

MINIGRANT PROGRAM FOR THE ACADEMICALLY GIFTED - III

FINAL REPORT

1980-1981

Prepared by
Division of Quality Assurance

1980-1981

MINIGRANT PROGRAM FOR THE ACADEMICALLY GITED - III

Patsy Baker Blackshear, Project Director

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SUMMARY AND FINDINGS

Title

Minigrant Program for the Academically Gifted

Project Director

Patsy Baker Blackshear

Project Location

Each of the former six regions of the District of Columbia Public Schools were represented by one elementary and one junior high school. Some project levels encompassed a joint project of two or more schools.

Target Population

ject was designed to serve approximately 500 elementary and junior high level students who had been identified as demonstrating or having potential for superior academic achievement.

Background

Socio economically disadvantaged students who may be considered gifted or talented have traditionally had limited access to programs that would assist them in developing to their fullest potential. The Minigrant Program sought to provide the necessary support and instructional challenges to minority students capable of superior performance.

Description of Project

More than 500 students (a majority from Title I Schools), who had been identified as being in the top 10% of their classes participated in the program. There were nine projects with 53 staff members in ten schools. All of the projects emphasized mathematics and language arts using a curricular approach compatible with the needs and talents of the school. Program administrative staff provided continuous technical assistance and direction to each site.

Stated Objectives

I. Prior to October 1980, the Minigrant Program staff will provide staff development sessions and other forms of technical assistance and support to the pilot projects to insure the identification of students in grades K-6 and 7-9.

II. By the close of the 1980-81 school year the Minigrant Program will develop and disseminate program development and identification guidelines for the academically gifted and talented.

III. During the 1980-81 school year, the Minigrant Program staff will provide technical assistance to the pilot projects to ensure that each project will offer appropriate instruction to students in the content areas of mathematics and language arts.

IV. During the 1980-81 school year, the Minigrant Program staff will collect and analyze data related to the pilot project goals, objectives and activities.

Evaluation

The evaluation follows the Planning, Monitoring, and Implementation (PMI) Model for Decision-Making which was developed by the Division of Quality Assurance, District of Columbia Public Scools.

Findings

1. The Minigrant Program staff provided staff development sessions and other forms of technical assistance and support to the pilot projects. The minigrant program also insured through planning and training that students in grades K-6 and 7-9 in the targeted schools were screened and eligible students were identified.

2. The Minigrant Program developed and disseminated program development and identification guidelines for the academically gifted and talented.

3. The Minigrant Program staff provided technical assistance and training to the pilot projects to ensure that each project offered appropriate instruction to the students in the content areas of mathematics and language arts. The Minigrant Program also set-up a monitoring plan which enabled the project coordinator to monitor the effects of their program.

4. The Minigrant Program collected and analyzed data related to the pilot project goals, objectives and activities.

BACKGROUND AND PROJECT OBJECTIVES

Introduction

Purpose - The purpose of the MINIGRANT PROGRAM FOR THE ACADEMICALLY GIFTED - PHASE III was to encourage and support pilot projects for gifted and talented students in the District of Columbia Public Schools, with a special emphasis on Title I schools.

Need - The need for such projects arose from the realization that disadvantaged children who are also gifted and talented frequently do not have access to programs appropriate to their academic potential.

History - In 1976 a District of Columbia Board of Education Policy Statement on the Education of the Gifted and Talented emphasized the need for programs for the gifted and talented.

In 1977 a survey showed that only 11 identified programs addressed the needs of the gifted and talented in the 200 District of Columbia Public Schools.

In the fall of 1977 the Gifted and Talented Education Advisory Council for the District of Columbia Public Schools was established for general planning and assistance in the development of minigrant guidelines. The committee was comprised of a cross section of people representing community organizations and the school system.

Also by the fall of 1977 a Resource Cadre consisting of 25 parents, principals, and teachers was established to provide technical assistance to the minigrant proposal writers.

A proposal to develop and operationalize a comprehensive state plan, a training program, and an exemplary project for academically gifted students was submitted to the U.S. Office of Education and a proposal to support the minigrant projects was submitted to the ESEA Title IV-C office.

1977-78 was a planning year. The Minigrant Program was established to support two projects for the academically gifted and talented in each of the six administrative regions, with one project at the elementary level and one at the junior high level in each region. Most students were in Title I schools. In some cases more than one elementary or junior high school in a region collaborated to arrive at a joint project. The proposals were funded and the program began operation during the 1978-79 school year with 332 students in grades K-3 and 7. During the 1979-80 school year, the program included 590 students in grades K-4 and 7-8. During the 1980-81 school year, the program included 560 students in grades K-9.

Description of the Project

Target Population - The original target population consisted of two schools encompassing grades K-3 and 7, in each of the previous six administrative regions. Although three projects withdrew from the 12 original ones, grade levels were increased to include all grades from K through 9. All students attending the target and feeder schools were screened for possible participation in the program.

Staffing - During the 1980-81 school year there were 10 schools with teachers, counselors and other directly involved staff in the Title IV-C program, each project headed by a coordinator and each offering a curricular approach compatible with the needs and talents of the school and emphasizing mathematics and language arts. There were additional school projects supported by an Office of Education grant also following the minigrant model. Program staff consisted of the program director, secretary and two assistants: a Title IV resource teacher and a District of Columbia Public School resource teacher. The staff assisted project coordinators in the identification of students, in program planning and in program implementation. They also provided technical assistance through on-site monitoring and promoted general awareness of the program through dissemination activities.

Similarities and Differences of the Minigrant Program - The programs varied according to the talents and resources of both the staff and the students including emphasis in areas such as language arts, mathematics, science, music, English and social studies.

The project staff provided for uniformity through technical assistance which emphasized three characteristics: (1) a multiple criteria selection process; (2) a curriculum differentiated from the regular program and containing elements of critical thinking and problem solving; and (3) staff development which was directed toward increasing proficiency in academic areas and encouraging the flexibility required for working with gifted and talented students. Instruction was based on one of the theoretical models presented during staff development sessions.

Stated Objectives

I. Prior to October 1980, the Minigrant Program staff will provide staff development sessions and other forms of technical assistance and support to the pilot projects to insure the identification of students in grades K-6 and 7-9.

II. By the close of the 1980-81 school year the Minigrant Program will develop and disseminate program development and identification guidelines for the academically gifted and talented.

III. During the 1980-81 school year, the Minigrant Program staff will provide technical assistance to the pilot projects to ensure that each project will offer appropriate instruction to students in the content areas of mathematics and language arts.

IV. During the 1980-81 school year, the Minigrant Program staff will collect and analyze data related to the pilot project goals, objectives and activities.

EXTERNAL EVALUATION DESIGN - PLANNING, MONITORING AND IMPLEMENTATION (PMI) MODEL FOR DECISION-MAKING

The evaluation follows the Planning, Monitoring and Implementation (PMI) Model for Decision-Making which was developed by the Division of Quality Assurance, District of Columbia Public Schools. (See Appendix A.) The evaluation design consisted of the intended inputs, processes and outputs. The interim report related agreements or discrepancies between intended and observed inputs and processes. This final report includes the interim report data, the agreements and discrepancies between intended and observed outcomes with supporting data in the appendix, a summary of performance agreement and analysis/conclusions/implications, for each objective.

RESULTS

FINAL REPORT

PLANNING, MONITORING, AND IMPLEMENTATION (PMI)
EVALUATION MODEL FOR DECISION-MAKING

Reporting Form

Goal: To provide a catalyst for establishing citywide services for the gifted and talented.

Objective I: Prior to October 1980, the Minigrant Program staff will provide staff development sessions and other forms of technical assistance and support to the pilot projects to insure the identification of students in grades K-6 and 7-9.

PART I

INPUTS

INTENDED	STATUS	OBSERVED
1. Data for students in target grades and students screened in the project schools: standardized test data; grades; creativity test data; and nominations	Agreement	1. The evaluation team reviewed the raw data which were on file at the director's office.
2. Baldwin Identification Matrices (BIM) for recording and screening data in the project schools	Agreement	2. The evaluation team observed the BIMs which were on file at the director's office.
3. Personnel to perform the identification tasks	Discrepancy	3. The project was unable to get the number of substitutes desired (i.e. at least 5). Only two substitutes were hired and other project personnel were used. The inability of the project to hire the number of substitutes needed was a result of a lack of financial resources. The effect of this situation was that it took longer to complete the identification process.

OBJECTIVE I

PART II

PROCESSES

INTENDED	STATUS	OBSERVED
1. Staff development sessions will be held for the project team responsible for collecting identification data.	Areement	1. The "Staff Development/ Training Calendar SY 80-81" and completed evaluation forms showed that staff development and technical assistance meetings had been held.
2. Selection of students to be screened will be made by the following criteria: a. For grade levels with existing programs, students must have a current composite report card grade of B or better in language arts and mathematics; b. For grade levels without existing programs, students must have a current composite report card grade of C or better in language arts and mathematics or test data of 50th percentile or better on available test data.	Agreement	2. According to the program director and records on file, selection of students to be screened was done as specified in the intended column.
3. Prior to October 31, 1980 the PMT/PRT, the CTBS, the Metropolitan Readiness Test or other available standardized test data will be collected for all students being screened in the project schools, and the data recorded on a BIM.	Agreement	3. This intended data was collected as evidenced by the completed BIMs on file in the Director's office.
4. Prior to October 31, 1980, the creativity test will be administered to all students in the project schools who were screened and all scores will be recorded on a BIM.	Agreement	4. This intended data was collected as evidenced by the completed BIMs on file in the Director's office.

OBJECTIVE I

PART II (continued)

PROCESSES

INTENDED	STATUS	OBSERVED
5. Prior to October 31, 1980, report card grades of all students being screened in grades 1 through 8 in the project schools will be recorded on a BIM.	Agreement	5. This intended data was collected as evidenced by the completed BIMs on file in the Director's office.
6. Prior to October 31, 1980, total score of all students in the project schools who were screened will be recorded on a BIM.	Agreement	6. This intended data was collected as evidenced by the completed BIMs on file in the Director's office.
7. Prior to October 31, 1980, selection of the students for the program will be made (those with the top 10% BIM scores) and a list of identified students sent to the schools where the children will be participating.	Agreement	7. This intended item was met as evidenced by the letter sent to the project schools listing the names of students who qualified by being in the top 10% of the BIMs.

OBJECTIVE I

PART III

OUTCOMES

INTENDED	STATUS	OBSERVED
1. By June, 1981, the project director will make available to the Title IV-C Evaluation Unit, a record of staff development and technical assistance sessions related to identification of students, the sessions to be held for the 12 project coordinators and staff before October, 1980.	Agreement	1. The "Summary of Technical Assistance Provided For SY 80-81 Student Identification" form revealed that four staff development sessions were held and the identification process was described. The sessions were held on January 29, 1981, March 27, 1981, April 28, 1981 and May 28, 1981. See Appendix B.
2. By June, 1981, the project director will make available to the Title IV-C Evaluation Unit, records that will show that screening has been accomplished as described through the staff development process.	Agreement	2. The "Procedure for Identifying Students with Academic Potential (Grades 1-9)" guidelines and the "SY 79-80 Schedule for Student Identification" forms show that specific procedures and deadlines were set-up to insure that the screening was accomplished as described in the staff development meeting. The completed BIMs further revealed that the process for identifying G/T students was followed.
3. By June, 1981, the project director will make available to the Title IV-C Evaluation Unit, records that will show approximately ten percent of the project schools' population have been identified by BIM scores as qualified to participate in the projects.	Agreement	3. The Evaluation Unit counted the BIMs of the students who were identified as qualified to participate in the project. Comparing the count to the total number of students in targeted schools, it was determined that approximately 10% of the students were identified as qualified.

OBJECTIVE I

PART IV

PERFORMANCE AGREEMENT

OBSERVED INPUTS/OBSERVED PROCESSES

Within the observed inputs and observed processes only one discrepancy occurred: the intended number of substitutes that the program proposed were not hired due to limited financial resources. The effect of this situation was displayed in the lengthening of the time needed to complete the identification process. The other observed inputs which included the BIM, standardized test scores, grades, creativity test scores and nominations all acted to aid the observed processes. The students were screened and tested in the areas identified in the screening procedure and the observed processes were in agreement with the intended processes. Although the lack of personnel did affect the identification process, it did not adversely affect the scheduling of the staff development sessions.

OBSERVED PROCESSES/OBSERVED OUTCOMES

The observed processes which included the collection of data and screening of the students made possible the completion of the observed outcomes. In the observed outcome section it was shown that the screening was completed. Using the identification procedure approximately 10% of the project schools' students qualified. It was also shown that the nine minigrant project directors received staf. development and technical assistance in the areas specified in the intended column.

OBJECTIVE I

PART V

SUMMATION

ANALYSES/CONCLUSIONS/IMPLICATIONS

Objective I, as stated in the proposal, was met. The Minigrant Program for Gifted provided staff development sessions and technical assistance for the projects to insure that the identification process was carried out in the targeted schools. The only discrepancy which occurred in this section was with the hiring of personnel. The effect of this discrepancy was an increase in the time required to complete the identification process.

DECISIONS

This report will be forwarded to the Project Director, Grants Administration, the Superintendent and the School Board to aid them in their decision-making concerning this project.

FINAL REPORT

PLANNING, MONITORING, AND IMPLEMENTATION (PMI)
EVALUATION MODEL FOR DECISION-MAKING

Reporting Form

Goal: To provide a catalyst for establishing citywide services for the gifted and talented.

Objective II: By the close of the 1980-81 school year the Minigrant Program will develop and disseminate program development and identification guidelines for the academically gifted and talented.

PART I

INPUTS

INTENDED	STATUS	OBSERVED
1. Identification records from previous years	Agreement	1. The evaluation team had on file the identification records from the previous years.
2. Feedback from project schools including interviews and records concerning program operation	Agreement	2. Feedback from the project schools was obtained as evidenced by an internal evaluation report dated 1980.
3. Guidelines and materials from other resources	Agreement	3. The Gifted and Talented Program acquired the book, "Program Design and Development for Gifted and Talented Students" which reviewed guidelines and materials.
4. Materials previously developed by program project personnel	Agreement	4. The program personnel developed three documents: (1) "The Identification and Assessment of Black Gifted/Talented children in the Washington DC Public Schools", in Eric Exceptional Child Education Report-Black and Gifted

OBJECTIVE II

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
4. (continued)	Agreement	4. (continued) Allen Sullivan, Yvonne Ewell, Karen Rogers, Eric Clearinghouse, 1980; (2) "Multiple Criterion Procedures and Instruments for the Identification of Academically Gifted/Talented Students", May 1979, Minigrant for the Academically Gifted/Talented; and (3) "Guidelines for Minigrant Projects" Summer 1979; Minigrant for the Academically Gifted/Talented.
5. Project personnel to complete the documents	Discrepancy	5. The Minigrant program lost a professional person and a clerical person. After three months the professional position was filled but the clerical position was not filled.

OBJECTIVE II

PART II

PROCESSES

INTENDED	STATUS	OBSERVED
1. The Minigrant Program director and staff will compile internal directives, guidelines, and other pertinent data related to program development	Agreement	1. The Evaluation Unit personnel observed pertinent data used in the compilation of the Program Development Guide.
2. The Minigrant Program director and staff will obtain and examine outside data related to program development for gifted education.	Agreement	2. The director received information from other school systems outlining the development of their gifted programs. The project received information from Baltimore, Prince George's County School System and the State of Georgia.
3. The Minigrant Program director and staff will compile internal forms, assessments, directives and other pertinent data related to student identification.	Agreement	3. Data used for compilation of the Identification Guide were reviewed by the evaluation team.
4. The Minigrant Program director and staff will develop first drafts of documents related to program development and identification.	Agreement	4. Drafts of the program development guide and the identification document were examined by the evaluation team.
5. First drafts will be critiqued by Division of Instructional Program Development and Services, Gifted and Talented Advisory Council Members, and staff in the Minigrant schools.	Agreement	5. The identification document was critiqued on February 10, 1981 and the program development guide on March 27 and April 3, 1981.

OBJECTIVE II

PART II (continued)

PROCESSES

INTENDED	STATUS	OBSERVED
6. Using the input received, the Minigrant Program director and staff will develop the final documents.	Agreement	6. The final draft of both documents were completed and a copy of each was sent to the Evaluation Unit.
7. Final documents will be printed and disseminated.	Agreement	7. The final copies of the identification document and the program guidelines were printed and disseminated to the Minigrant Project Coordinators as reported by the Minigrant Program director.

OBJECTIVE II

PART III

OUTCOMES

INTENDED	STATUS	OBSERVED
1. By June, 1981, the Minigrant Program director will make available to the Title IV-C Evaluation Unit, the Program Development Guidelines for the academically gifted and talented.	Agreement	1. The Title IV-C Unit received a final draft of the Program Development Guidelines which was disseminated to the Project coordinators as guidelines for their programs.
2. By June, 1981, the Minigrant Program director will make available to the Title IV-C Evaluation Unit, the Identification Guidelines for the academically gifted and talented.	Agreement	2. The Title IV-C Unit received the completed identification document from the Minigrant Program director which delineated the total identification process.
3. By May, 1981, the Minigrant Program director will make available to the Title IV-C Evaluation Unit the data that will show which variables on the BIM differentiated those students who were selected and remained in the program from those students who left the program.	Agreement	3. The Title IV-C Unit received the BIMs which contained the information needed to determine which variables differentiated those students who were selected and remained in the program from those students who left the program. (See Appendix C.)
4. By May, 1981, the Minigrant Program director will make available to the Title IV-C Evaluation Unit the data which will compare students who qualified for one of the gifted/talented projects with those who did not.	Agreement	4. The Title IV-C Unit received the BIMs which contained the information needed to compare students who qualified for one of the gifted/talented projects with those who did not. (See Appendix C.)
5. By May, 1981, the Minigrant Program director will make available to the Title IV-C Evaluation Unit the data that will determine if socioeconomic status was a discriminating factor in the selection process for one of the gifted/talented projects.	Agreement	5. The Title IV-C Unit received the socioeconomic status data on enough students to complete an analysis to determine whether or not socioeconomic status was a factor in the selection process. (See Appendix C.)

OBJECTIVE II

PART IV

PERFORMANCE AGREEMENT

OBSERVED INPUTS/OBSERVED PROCESSES

The discrepancy in the observed inputs and processes sections occurred when the project lost a professional and a clerical staff person whose positions were instrumental in the timely completion of the program development and identification guidelines documents. The inputs needed to produce the documents were obtained and the processes identified as necessary for the development of the documents were completed.

OBSERVED PROCESSES/OBSERVED OUTCOMES

The staff of the G/T program compiled outside data which was pertinent to the development of both the identification and program development documents. Along with the outside data, the project used the information acquired during its program to set-up and develop the outline for the documents. In doing so the project fulfilled the requirements of the process section and avoided any discrepancies between the intended and observed. The identification and the program development documents were disseminated to the nine project directors and other interested persons.

The project made available to the Title IV-C Evaluation Unit all of the data used in the identification processes. This data was further analyzed to determine some of the attributes of the population selected as qualified to participate in the Minigrant program. The following three questions were investigated by project members: (1) Which of the variables on the BIM best differentiated those students who were selected and remained in the program from those students who left the program? (2) Which variables best determined who was selected as qualified for the Minigrant program? and (3) Was socioeconomic status a discriminating factor in the selection process?

OBJECTIVE II

PART V

SUMMATION

ANALYSES/CONCLUSIONS/IMPLICATIONS

The one discrepancy in the section was due to the loss of two staff members. This caused a delay in the production of the two documents which were developed by the program. Both documents, program development and the identification guidelines, were completed and disseminated as specified in the stated objective. Therefore, the objective was met. Using the identification data, a research study was conducted to test the validity of the identification procedure. Results, which were reported at the 89th annual convention of the American Psychological Association, indicated that the procedures were valid.

DECISIONS

This report will be forwarded to the Project Director, Grants Administration, the Superintendent and the School Board to aid them in their decision-making concerning this project.

FINAL REPORT

PLANNING, MONITORING, AND IMPLEMENTATION (PMI)
EVALUATION MODEL FOR DECISION-MAKING

Reporting Form

Goal: To provide a catalyst for establishing citywide services for the gifted and talented.

Objective III: During the 1980-81 school year, the Minigrant Program staff will provide technical assistance to the pilot projects to ensure that each project will offer appropriate instruction to students in the content areas of mathematics and language arts.

PART I

INPUTS

INTENDED	STATUS	OBSERVED
1. Sufficient/adequate rooms, materials, and equipment to implement the project	Discrepancy	1. An adequate number of rooms for the Gifted/Talented program were available. Many of the materials needed for the program were self-made, some were xeroxed, others were pulled from books. However, an inadequate number of notebooks for teachers were received and some materials ordered through other funding were not received.
2. Staff to implement the projects	Discrepancy	2. Due to the system's reduction-in-force, the staff needed to implement the projects had not been hired at the beginning of the year. Several months passed before the professional staffer could be hired and the school year passed without a secretary.

OBJECTIVE III

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
3. Students grouped according to schools' capabilities to staff gifted classes.	Agreement	3. The students were grouped according to the schools' capabilities as evidenced by a wall chart.
4. Schedules for staff development	Agreement	4. A weekly schedule for staff development was reviewed by the evaluation team.
5. Trained presenters for staff development sessions	Agreement	5. The trained presenters for staff development sessions were listed on the Training Calendar.
6. Check lists for monitoring projects	Agreement	6. The check lists for monitoring the projects were available for review by the evaluation team.

OBJECTIVE III

PART II

PROCESSES

INTENDED	STATUS	OBSERVED
1. Program staff will assure that formal and differentiated instruction will begin in October and continue at least 3 times per week throughout the school year.	Agreement	1. The schedule of services to the students was posted on a wall chart in the director's office which demonstrated that instruction occurred as planned.
2. Monitoring will occur on an average of once a month, alternating between project staff and Minigrant Program staff to assure compliance with the project guidelines	Discrepancy	2. The Minigrant Program schedules showed that a monthly visitation for the purpose of monitoring the projects was scheduled. However, loss of personnel from the program prevented the monitoring schedule from being carried out completely. The Minigrant Program director at the meeting of project coordinators stressed the importance of monitoring, and gave the coordinators forms which would aid them in the documentation of self monitoring.
3. A minimum of five staff development sessions will be held during the school year.	Agreement	3. Five staff development meetings were held. The dates for these meetings were: September 16, November 19, January 29, March 30 and May 28, as evidenced by sign-in sheets and evaluation forms.
4. Project personnel will complete evaluation forms at each workshop and course.	Agreement	4. The evaluation team reviewed the completed evaluation forms for the workshop sessions.

OBJECTIVE III

PART III

OUTCOMES

INTENDED	STATUS	OBSERVED
1. By June, 1981, the project director will make available to the Title IV-C Evaluation Unit records to show that technical assistance was provided to the projects to ensure appropriate instruction to the students.	Agreement	1. The Title IV-C Evaluation Unit received a chart called "Summary of Technical Assistance to Pilot Projects Provided Through Staff Development," which indicated several technical assistance workshops which were designed to aid appropriate instruction to students in the projects. The evaluation team also received a training calendar which indicated the data of technical assistance meetings.
2. By June, 1981, the project director will make available to the Title IV-C Evaluation Unit records to show that appropriate instruction in the content areas of mathematics and language arts was offered.	Agreement	2. The Title IV-C Evaluation Unit received the training calendar which listed the courses which were held to provide instruction in the areas of mathematics and language arts. The courses were six weeks long and began on March 4 (mathematics) and March 5 (language arts).
3. Data made available to the Title IV-C Evaluation Unit by the project director by June, 1981, will show that over 80% of the staff attending development sessions indicated that the sessions were helpful or very helpful.	Agreement	3. The course evaluation questionnaire used four questions on a five point scale to determine the usefulness of the workshop sessions. When the scores for the four questions were collapsed it was determined that 96.88% of the responses fell into the highest two categories. The remaining 3.13% of the responses fell into the middle category. See Appendix D for the results.

OBJECTIVE III

PART IV

PERFORMANCE AGREEMENT

OBSERVED INPUTS/OBSERVED PROCESSES

There were two discrepancies in the observed inputs section of the objective. The first pertained to materials ordered. Several items were ordered which were not received in adequate number or not received at all during the school year. The second discrepancy was in staffing. The system's reduction-in-force produced the situation that professional and clerical staff positions were lost. This situation adversely affected the observed processes. The discrepancy that occurred in the observed processes section was directly related to the loss of key personnel: the monitoring system set up by the Minigrant Program could not be carried out due to the lack of adequate personnel. The projects which would have been monitored by the Minigrant Program staff were encouraged to monitor themselves.

OBSERVED PROCESSES/OBSERVED OUTCOMES

The discrepancy found in the observed processes did not adversely affect the observed outcomes as stated in the outcome section. Technical assistance was given to the nine project directors in the Minigrant Program in the form of course and staff development sessions. The courses which were taught were in the area of mathematics and language arts instruction. The staff development sessions covered several areas which included the identification process, program development and instruction. These activities led to the agreement found between the observed and expected outcomes.

OBJECTIVE III

PART V

SUMMATION

ANALYSES/CONCLUSIONS/IMPLICATIONS

There were three discrepancies found in the section pertaining to Objective III. The discrepancies were in the areas of adequate materials, staff and monitoring. Although discrepancies had an adverse effect, they did not prevent the Minigrant Program from accomplishing its objective. The Minigrant Program provided technical assistance to the pilot projects in the content areas of mathematics and language arts instruction. Other technical assistance was provided in program development and identification areas to further ensure adequate instruction for the student populations under the program. Therefore, stated Objective III was met as specified in the proposal.

DECISIONS

This report will be forwarded to the Project Director, Grants Administration, the Superintendent and the School Board to aid them in their decision-making concerning this project.

FINAL REPORT

PLANNING, MONITORING, AND IMPLEMENTATION (PMI)
EVALUATION MODEL FOR DECISION-MAKING

Reporting Form

Goal: To provide a catalyst for establishing citywide services for the gifted and talented.

Objective IV: During the 1980-81 school year, the Minigrant Program staff will collect and analyze data related to the pilot project goals, objectives and activities.

PART I

INPUTS

INTENDED	STATUS	OBSERVED
1. Recorded goals and objectives for each miniproject	Agreement	1. The goals of the project were recorded on the school progress chart in the project director's office.
2. Assessment schedule	Agreement	2. The recordkeeping schedule for projects listed the assessment schedule.
3. Forms for evaluating minigrant projects	Agreement	3. The evaluation team received a copy of the evaluation forms for the projects.
4. Time allocated for project and Minigrant Program staffs to conduct assessments	Agreement	4. Time was allocated to conduct the assessments. However, the program was unable to complete the assessment in the time period indicated due to the lost of a professional staffer.
5. Forms for collecting sampling of student evaluation results	Agreement	5. The forms for the teacher's rating of higher levels of cognitive thinking and affective data were examined. The fall and spring printouts were used for test data collection.

OBJECTIVE IV

PART II

PROCESSES

INTENDED	STATUS	OBSERVED
1. Minigrant Program director and Resource Teachers will meet with each Project Coordinator to discuss and record progress toward goals and objectives.	Agreement	1. The meetings were held when the projects were monitored by the individual project coordinators. The report, which included the staff opinion on the strength and weakness of the project, was distributed at the project coordinator's meeting.
2. Program Coordinator and Resource Teachers will collect student achievement data (CTBS) in May, 1981, from all students who began with the program (on whom original CTBS results are available).	Discrepancy	2. The program staff was unable to collect the data on the CTBS for the original students because data on individual students were not available.
3. Program Coordinator and Resource Teachers will collect random samplings of achievement data of all students in the program in May 1981.	Agreement	3. The data were made available to the Evaluation Unit.
4. Program Coordinator and Resource Teachers will collect samplings of student attendance data.	Agreement	4. The evaluation team reviewed the monthly students' attendance data starting with the month of October.

OBJECTIVE IV

PART III

OUTCOMES

INTENDED	STATUS	OBSERVED
1. Records which the project director will make available to the Title IV-C Evaluation Unit by June, 1981 will show that all projects have shown progress toward their goals and objectives.	Discrepancy	1. The School Progress Record received by the Title IV-C Evaluation Unit showed that seven of the nine projects reporting, showed progress toward their goals as evidenced by the completion of several of their stated objectives. Data on the remaining two projects were not received by the writing of this report and their status was not known.
2. Raw data which the project director will make available to the Title IV-C Evaluation Unit by June 1981, will show that students in the original group who were evaluated on the CTBS, will end the year with a higher mean standard score converted to percentile in mathematics and reading than of the year prior to entering the program.	Discrepancy	2. The data were not available for this intended outcome.
3. Raw data which the project director will make available to the Title IV-C Evaluation Unit by June 1981, will show that students in the sample will end the year with a higher mean standard score converted to percentile in mathematics and reading than of the year prior to entering the program.	Discrepancy	3. Comparing the pretest and posttest percentiles on the CTBS reading and mathematics scale, the following results were observed. The percentiles for reading scores increased in grades 2, 3 and 5. In grades 4 and 6 the percentiles remained the same. Grade 1 was the only

OBJECTIVE IV

PART III (continued)

OUTCOMES

INTENDED	STATUS	OBSERVED
3. (continued)	Discrepancy	3. (continued) grade which demonstrated a decrease in percentile. The mathematics percentiles in grades 2-6 showed an increase. A decrease in percentiles in mathematics was observed at the first grade level. Charts reporting the actual percentiles, expanded standard scores and numbers of students, are reported in Appendix E.
4. Students in the sample evaluated will end the year with higher mean attendance than the district average as indicated by data provided to the Title IV-C Evaluation Unit by June 1981.	Agreement	4. The Minigrant Program had two types of enrollment. Some of the students attended a five day program and the others a three day program. Results showed that the percentage attendance level was higher for the five day program than the three day program. This disparity was statistically significant at the .001 level. The percentage attendance for the five day program was 99.97%. For the three day program it was 98.97%. For both programs the percentage attendance was higher than that found in the system at large with an annual percentage of 84.3 at the junior high level and 91.9 at the elementary level.

OBJECTIVE IV

PART IV

PERFORMANCE AGREEMENT

OBSERVED INPUTS/OBSERVED PROCESSES

The recorded goals and objectives for each miniproject, the assessment schedule, evaluation forms and time allocated for conducting the assessments were all observed to be in place. The Minigrant Program staff met with the project coordinators and discussed and recorded progress toward the goals and objectives of the program. The program coordinator collected student achievement data (CTBS) from a group of students in the program. A discrepancy occurred when the data from the students who began with the program could not be identified.

OBSERVED PROCESSES/OBSERVED OUTCOMES

One of the observed outcomes was an analysis of the data produced by the students who were in the program from the beginning. It was impossible to identify the data for them and a discrepancy occurred. Another discrepancy occurred when data from all of the projects were not obtained. These data were needed to determine whether all projects made progress toward their goal. Data from seven of the nine projects were received and of the seven all showed progress toward their goals. Samples of attendance data were collected throughout the year showing the successful outcome on that item.

OBJECTIVE IV

PART V

SUMMATION

ANALYSES/CONCLUSIONS/IMPLICATIONS

There were three discrepancies in the section which comprised objective IV. Two occurred when the process of collecting the data on the CTBS for the original students was not completed and consequently the outcome which was to analyze the original students' progress could not be done. The other discrepancy occurred because data from all of the projects were not obtained. Seven of the nine projects returning data showed that progress toward their goals was being made. While the Minigrant Program staff did collect and analyze data from the projects as stated in the objective, the data were not sufficient to satisfy the intended outcome which was to demonstrate academic progress in all projects. In addition to the CTBS scores on reading and mathematics, attendance data were collected on the project students and compared to the system at large. The project students showed significantly better attendance than the average District students. Thus, Objective IV was met.

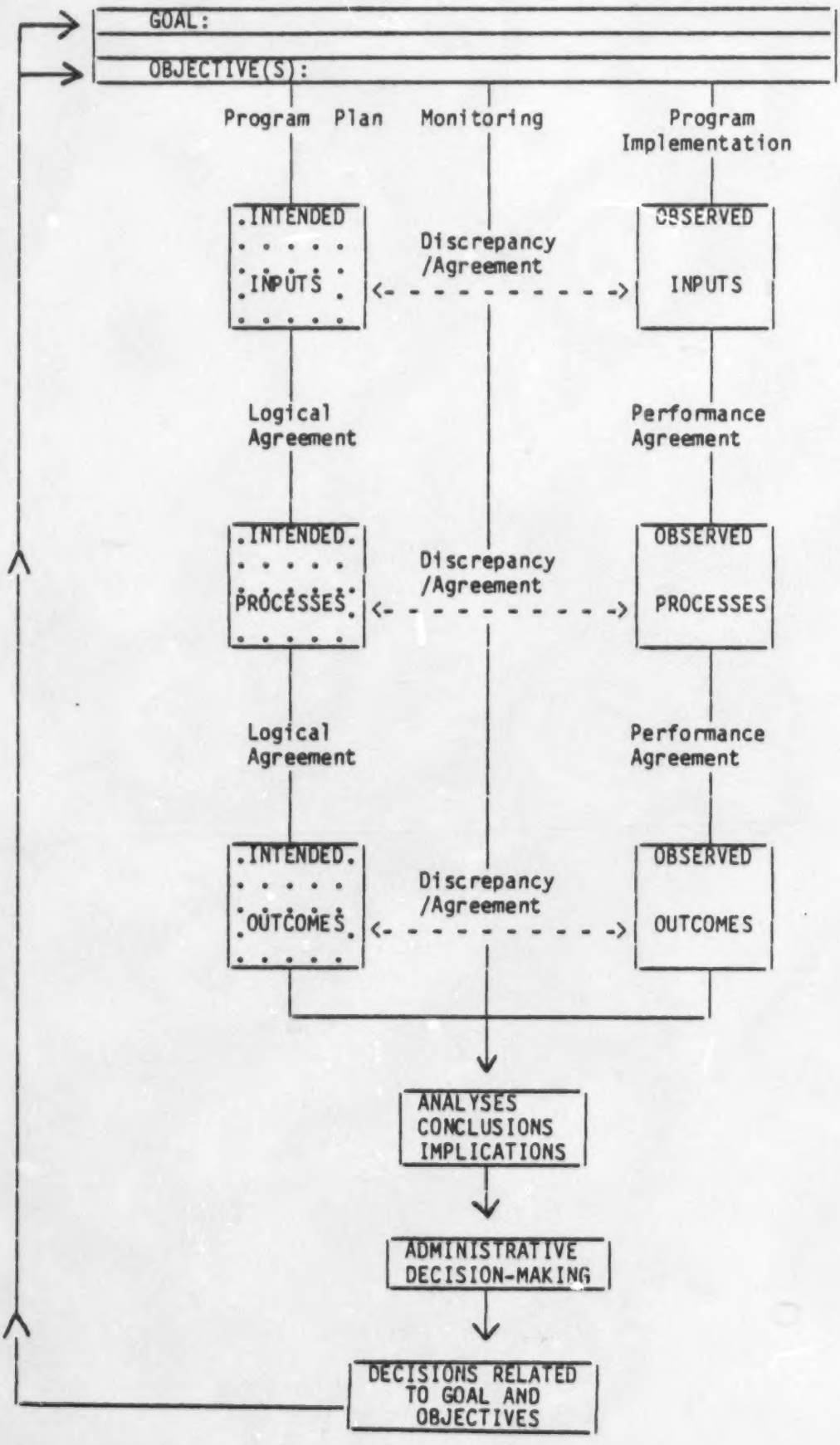
DECISIONS

This report will be forwarded to the Project Director, Grants Administration, the Superintendent and the School Board to aid them in their decision-making concerning this project.

APPENDIX A

EVALUATION MODEL SCHEMA

EVALUATION MODEL SCHEMA



APPENDIX B

SUMMARY OF TECHNICAL ASSISTANCE

SUMMARY OF TECHNICAL ASSISTANCE PROVIDED FOR SY 80-81

Starting Date	Title	Place
November 15, 1980	Strategies of Differentiating Instruction for Gifted/Talented	Seaton Elementary School
December 10, 1980	Counseling the Gifted	D.C. Teachers' Center
January 17, 1981 and January 24, 1981	Differentiating Instruction for the Gifted/Talented (Weekend Mini-Course)	Seaton Elementary School
*January 29, 1981	Half Day Gifted/Talented Project Coordinators' Meeting	Seaton Elementary School
February 6, 1981	ESAA Workshop	Seaton Elementary School
February 21, 1981 and February 28, 1981	Theoretical Models for Differentiating Instruction (Weekend Mini-Course)	Seaton Elementary School
March 4, 1981	Teaching Mathematics to the Gifted/Talented (Every Monday and Wednesday evening for six weeks)	Seaton Elementary School
March 5, 1981	Teaching the Gifted/Talented (Every Tuesday and Thursday evening for six weeks)	Seaton Elementary School
*March 27, 1981	Half Day Gifted/Talented Project Coordinators' Meeting	Seaton Elementary School
April 4, 1981 and April 11, 1981	Instructional Strategies for Gifted Education (Weekend Mini-Course)	Seaton Elementary School
April 6, 1981	Record Keeping	Seaton Elementary School
April 8, 1981	Proposal Development	Aiton Elementary School
*April 28, 1981	Region D Identification Workshop	Seaton Elementary School
May 28, 1981	Half Day Gifted/Talented Project Coordinators' Meeting	Seaton Elementary School

* Session held which was related to the Identification Process

APPENDIX C

REPORT ON IDENTIFYING LOW INCOME, MINORITY,
GIFTED AND TALENTED YOUNGSTERS

IDENTIFYING LOW INCOME, MINORITY, GIFTED AND TALENTED YOUNGSTERS[1]

Marcia McBeath[2] Leslie Smart[3]
Patsy Baker Blackshear[4]

Introduction

In the fall of 1977, a Title IV-C grant, Minigrant Program for the Academically Gifted and Talented (G/T), was secured to focus on the needs of gifted and talented students in the District of Columbia Public Schools. Special attention was devoted to identifying and servicing the economically disadvantaged from this population. Based upon competitive application, twelve school-based projects representing each of the school system's six administrative regions were identified to participate in the program. Two projects operated in each region, one at the elementary level and one at the junior high level. Elementary projects began the 1978-79 school year with services to students in grades K-3; junior high school projects began with services to 7th grade students. By the end of a proposed three years of

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(1) This paper was presented at the 1981 Annual Convention of the American Psychological Association, Los Angeles California, August 26, 1981.

The project reported on in this paper was developed under grants from ESEA Title IV-C in the Education Department and a State Grant from the Office of Gifted and Talented U.S. Department of Education. The contents do not necessarily represent the policy of the agency or endorsement by the Federal Government.

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program support, it was anticipated that these projects for the academically gifted and talented would be servicing students in grades K-9, a new grade level being added each year.

The identification procedure flowed from the definition which refers to the use of multiple criteria to select students who fall within the upper ten percent of a school's population. This concept embraces the idea of giftedness as a relative measure since students are compared only to others in the same school at the same grade level. Hence, during the first and second years of services to students, school norms for the assessment items used (see attached profile) were developed for each of the twelve projects. Students identified for services during the 1980-81 school year were identified with similar criteria. However, the data compiled over the last two years led to the initial use of system-wide norms.

The Gifted/Talented Education Program of the D.C. Public Schools operated as a catalyst for the development of citywide services for students demonstrating or showing potential for exceptional abilities. One of the major objectives was the development and evaluation of a multiple criteria identification process that could be applied throughout the School System.

As in other major cities, Washington, D.C. has students from all economic levels. The vast majority, however, over sixty percent of the public school students attend Title I schools. Similarly, the city has a wide range of ethnic and racial groupings. The proportion of Black students in this School System, however, is the largest in the nation, better than ninety-five percent.

Unlike most urban systems, the D.C. Public Schools do not use group intelligence tests. In the late 1960's the School System discontinued such tests after the courts declared that the tracking process resulting from their use was discriminatory. Thus, in order to screen for students who would be eligible for the program, an identification procedure that would be more inclusive than exclusive was needed.

Identification Procedure

The Baldwin Identification Matrix (BIM) was used as a data management system to identify the academically gifted and talented students who participated in the program. The identification assessment items on the BIM included an informal creative thinking test (figural), reading and mathematics tests, grades and nominations. The creativity test was adapted from the Minnesota Tests of Creative Thinking by E. Paul Torrance. Students were given a sheet of paper with circles on it and instructions to make objects from them. The total raw score summed the partial scores in the areas of fluency, originality, elaboration and flexibility.

The Comprehensive Test of Basic Skills (CTBS) is a nationally standardized achievement test presently used in the Dstrict of Columbia Public Schools as part of the overall testing program. Where students had no CTBS scores recorded, the reading or mathematics score from the Prescriptive Reading Test (PRT) or the Prescriptive Mathematics Test (PMT) was substituted. The PMT and PRT are criterion referenced tests developed by California Test Bureau/ McGraw Hill for the District of Columbia Public Schools.

Grades recorded on the BIM were based on the standard numerical formula where A=4.0. The score used came from a composite of grades that affected the particular instructional focus of the local school program. Solicited nominations came from parents, teachers and peers. Even though they were allowed, almost no unsolicted nominations were received. Peer nominations were derived from sociometric information requested from students concerning their classmates. They were to list, for example, "Who always asks a lot of questions?" Teachers were asked to complete nomination forms that required them to check the characteristics of their students which matched those exhibited by gifted and talented students. Parents were asked to complete similar forms.

The identification of the students was based on the BIM scores generated independently in each of the participating schools. Using the BIM, it was possible to rate students in comparison to others at the same grade level in that school. (See attached profile.) On each measuring instrument the median score for that school's population was used as a baseline. The difference between the median score and the top score was evenly divided into five groups. Descending weights from five to one were given to student scores filling in each of the five groups from top to median. For example, the student whose BIM is reproduced in the attached profile has a CTBS Mathematics Computation percentile score of 58. This fell into the second category up from the median, giving it a weight of two (2). The child's CTBS Language-Reading score was 93 placing it in the top group with a weight of five (5). Using the weighting method, students were not eliminated if they had some weakness on a particular assessment item as long as their total weighted score ranged in the top 10% of the school.

Research Questions

The researchers wondered which of the BIM items best discriminated between students who were selected for the program and those who were not. Were there other factors such as sex of student or socioeconomic status which affected the selection to a greater degree? What about students who were selected but did not remain in the program? During the 1979-80 school year there were 52 such students who discontinued the program for various reasons. Eighteen of the 52 students discontinued because they either were incorrectly scheduled or they transferred out of the system. The remaining 34, which represented 66% of the discontinuing students, fell into one of the categories listed here: Learning Difficulty; Adjustment Problem; Health/Personal Problem; Removed by Parents; and Self Deselection. The researchers wondered which identification factors might discriminate this group from those who stayed in the program.

Through the use of a discriminant analysis with the variables, creativity score, mathematics score, reading score, grade point average, peer nominations, parent nominations, teacher nominations, total nominations, sex and socioeconomic status (determined by free lunch eligibility), answers to the following questions were sought:

1. What factors differentiate students who are selected for the program from those who are not?
2. What factors differentiate students who remain in the program from those who do not?

Research Design

During the spring of 1979 using the first revision of the identification process, approximately 2700 students in the target school were screened for

the Gifted/Talented program to participate during the 1979-80 school year. Of the approximately 270 students who qualified for placement based on the BIM, data were available on 225. Since the kindergarten screening for first grade inclusion differed from the rest, the 20 students from that grade were not used in the analyses, leaving a total of 205 students in the in-program group.

From the 2400 students who did not qualify for placement, 205 were selected by the random number method to represent the not-in-program group. Using these two groups and the variables listed in the Research Questions section, a discriminant analysis was performed to find the variables which, in combination, maximized the variance between those students who were selected for the program and those who were not selected.

The second question was concerned with students who were qualified for the program but did not remain in it. Of the 225 students who qualified for the 1979-80 school year program, 30 elected not to participate, 52 began the program but left before the end of the year and 140 remained in the program. The two groups used for the second question were (1) those who stayed in the program and (2) those who were qualified but did not begin or who began but left the program. Eliminating the kindergartners the final analyses were done on 123 stayed-in-program students and 82 left-program students.

Again using the variables listed in the Research Questions section, a discriminant analysis was performed to find the variables which, in combination, maximized the variance between those students who remained in the program and those who did not.

Results

The first analysis compares the students who were selected to participate in the program (group 1) with a random sample of those students who were not

selected (group 2). A total of 45 cases were dropped from the analysis due to missing data on a discriminant variable resulting in 365 cases being used. Group 1 had 178 cases with the remaining 187 cases in group 2. From the first analysis, all of the BIM data plus sex of student were used as variables. A stepwise discriminant analysis using Wilks' Lambda as a criterion for selection was performed to eliminate any predictor variables proved not to be useful. (See Table 1).

TABLE 1

SUMMARY TABLE FOR THE DISCRIMINANT FUNCTION ON STUDENTS SELECTED FOR THE PROGRAM AND THOSE NOT SELECTED

VARIABLES	ORDER	WILKS' LAMBDA	SIGNIFICANCE
Mathematics	1	0.398233	0.0000
Reading	2	0.330055	0.0000
Creative Thinking	3	0.294337	0.0000
Nominations (Total)	4	0.262764	0.0000
Peer Nominations	5	0.248826	0.0000
Parent Nominations	6	0.235207	0.0000
Grade Point Average	7	0.223180	0.0000
Teacher Nominations	8	0.214051	0.0000
Sex	9	0.213161	0.0000

The results of the stepwise procedure presented in Table 1 show that nine predictor variables were entered and tested, and all of them were selected.

Table 2 shows the results of the first analysis.

TABLE 2

CANONICAL DISCRIMINANT FUNCTION FOR THE SELECTED AND NON-SELECTED GROUPS

Canonical Correlation	Wilks' Lambda	Chi-Square	D.F.	Significance
0.8870393	0.2131613	554.14	9	0.0000

Table 2 shows that the canonical function of the nine predictor variables produces a high degree of separation as indicated by the final Wilks' Lambda (.21316) and a canonical correlation of (0.887). The chi-square analysis reported in Table 2 shows that the discriminant function prediction equation facilitates a more accurate prediction than would be experienced if chance alone dominated the selection process.

The standardized discriminant function coefficients for this analysis are presented in Table 3.

TABLE 3

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS FOR THE ANALYSIS OF SELECTED/NON-SELECTED GROUPS

VARIABLE	FUNCTION 1
Nominations (Total)	1.18812
Peer Nominations	-0.49929
Mathematics	0.48424
Parent Nominations	-0.44685
Creative Thinking	0.39442
Reading	0.33185
Teacher Nominations	-0.32756
Grade Point Average	0.30633
Sex of Student	-0.07531

As may be seen in Table 3 the highest contributor to the function is total nominations. The other eight variables listed in descending order are peer nominations, mathematics, parent nominations, creative thinking, reading, teacher nominations, grade point average and sex. Three of the top four (largest) contributors to the discriminant function are related to nominations and, therefore, the function can be called a nominating function.

When socioeconomic status (SES) is entered into the equation, 145 cases are excluded from the analysis due to lack of data. Group 1 now contains 83 cases and group 2 has 183. Ten predictor variables were entered into the stepwise procedure and sex of the students was removed from the analysis. Table 4 shows the results of the next analysis.

TABLE 4

CANONICAL DISCRIMINANT FUNCTION FOR SELECTED/NON-SELECTED GROUPS ADDING SOCIOECONOMIC STATUS AS A VARIABLE

Canonical Correlation	Wilks' Lambda	Chi-Square	D.F.	Significance
0.8647677	0.2521769	356.12	9	0.0000

The canonical correlation as shown in Table 4 remains high and the Wilks' Lambda still indicates a high degree of separation. The chi-square analysis reveals that the discriminant function prediction equation produces a selection which is significantly different from chance.

In Table 5 the results of the classification of known cases using the two discriminant functions are presented.

TABLE 5

RESULTS OF THE CLASSIFICATION EQUATION WITH AND WITHOUT SOCIOECONOMIC STATUS (SES)

Classification Results - With SES

Actual Group	No. of Cases to Develop Prediction	No. of Cases for Classification	Predicted Group Membership 1	2
Group Selected 1	82	205	201 98.0%	4 2.0%
Group Not Selected 2	183	205	8 3.9%	197 96.1%

Percent of "grouped" cases correctly classified: 97.07%

Classification Results - Without SES

Actual Group	No. of Cases to Develop Prediction	No. of Cases for Classification	Predicted Group Membership 1	2
Group Selected 1	178	205	204 99.5%	1 0.5%
Group Not Selected 2	187	205	8 3.9%	197 96.1%

Percent of "grouped" cases correctly classified: 97.80%

Table 5 shows that when SES is used in the classification equation there is only a slight lowering in the accuracy of the equation to classify the cases correctly into their groups.

The canonical discriminant function coefficients' order is different when SES is used. (See Table 6).

TABLE 6

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS
FOR THE ANALYSIS OF SELECTED/NON-SELECTED GROUPS
ADDING SOCIOECONOMIC STATUS AS A VARIABLE

VARIABLE	FUNC 1
Nominations (Total)	1.12629
Parent Nominations	-0.47401
Mathematics	0.46057
Peer Nominations	-0.40917
Creative Thinking	0.37610
Reading	0.32999
Socioeconomic Status	0.28437
Teacher Nominations	-0.28358
Grade Point Average	0.26893

Table 6 shows that when comparing the top four predictor variables in this function to the first one (without SES) the order of parent and peer nominations is reversed. However, the first and third discriminant coefficients, total nominations and math respectively, remain unchanged.

These findings suggest that the socioeconomic status does not play a very important part in the selection process. However, its presence does influence the structure of the discriminant function.

The next analysis compares the students who were selected to participate in the program and remained in the program (group 1) with those students who were selected for the program and either participated for less than a year or did not participate at all (group 2). A total of 205 students were entered

into the analysis. Again, the BIM data plus sex of students were used as variables. Twenty seven of the cases were dropped due to missing data on at least one of discriminating variables leaving 108 in group 1 and 70 in group 2. A stepwise discriminant analysis was used and the results of this procedure are presented in Table 7.

TABLE 7

SUMMARY TABLE FOR THE DISCRIMINANT FUNCTION ON STUDENTS SELECTED FOR THE PROGRAM WHO REMAINED IN AND THOSE SELECTED WHO DROPPED OUT OR DID NOT ENTER

LABEL	ORDER	WILKS' LAMBDA	SIGNIFICANCE
Nominations (Total)	1	0.967447	0.0160
Reading	2	0.945952	0.0077
Mathematics	3	0.932614	0.0068
Creative Thinking	4	0.916160	0.0042
Peer Nominations	5	0.909497	0.0057

Nine discriminant variables were entered into the analysis, and, as may be seen in Table 7, five were selected. The predictor variables whose F level were insufficient for inclusion were grade point average, teacher nominations parent nominations and sex of student.

Table 8 shows that the canonical discriminant function of the five prediction variables did not produce a high degree of separation as indicated by the final Wilks' Lambda (.6634) and a canonical correlation of .3008.

TABLE 8

CANONICAL DISCRIMINANT FUNCTION ON STUDENTS SELECTED FOR THE PROGRAM WHO REMAINED IN AND THOSE SELECTED WHO DROPPED OUT OR DID NOT ENTER

Canonical Correlation	Wilks' Lambda	Chi-Square	D.F.	Significance
0.3008366	0.9094973	16.459	5	0.0056

However, the chi-square analyses as presented in Table 8 shows that the selection process is significantly different from that which would be expected on a chance selection.

The canonical discriminant function coefficients are shown in Table 9.

TABLE 9

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS FOR THE ANALYSIS OF STAYED-IN AND LEFT-PROGRAM STUDENTS

VARIABLE	FUNCTION 1
Nominations (Total)	-0.76020
Reading	-0.50294
Creative Thinking	0.48062
Mathematics	0.43676
Peer Nominations	0.38450

As may be seen in Table 9, the largest contributor to the discriminant function is total nominations.

When socioeconomic status (SES) is entered into the equation the stepwise procedure yields eight predictor variables. (See Table 10.)

TABLE 10

SUMMARY TABLE INCLUDING SOCIOECONOMIC STATUS FOR THE DISCRIMINANT FUNCTION ON STUDENTS SELECTED FOR THE PROGRAM WHO REMAINED IN AND THOSE SELECTED WHO DROPPED OUT OR DID NOT ENTER

LABEL	ORDER	WILKS' LAMBDA	SIGNIFICANCE
Parent Nominations	1	0.839262	0.0002
Creative Thinking	2	0.751757	0.0000
Socioeconomic Status	3	0.708849	0.0000
Mathematics	4	0.685821	0.0000
Reading	5	0.662113	0.0000
Grade Point Average	6	0.642805	0.0000
Sex	7	0.631142	0.0000
Teacher Nominations	8	0.619326	0.0000

The predictor variables with F values insufficient for inclusion when SES is entered into the equation are total nominations and peer nominations. Table 11 presents the canonical discriminant functions with SES as an added variable.

TABLE 11

CANONICAL DISCRIMINANT FUNCTION FOR STAYED-IN AND LEFT-PROGRAM STUDENTS ADDING SOCIOECONOMIC STATUS AS A VARIABLE

Canonical Correlation	Wilks' Lambda	Chi-Square	D.F.	Significance
0.6169882	0.6193255	36.413	8	0.0000

The canonical correlation (.6169) for this analysis is not very high and the degree of separation between the two groups represented by Wilks' Lambda (.6193) in also low.

In Table 12 the results of the classification of the known cases using the two discriminant functions are presented.

TABLE 12

RESULTS OF THE CLASSIFICATION EQUATION
WITH AND WITHOUT SOCIOECONOMIC STATUS (SES)

Classification Results - With SES

Actual Group		No. of Cases to Develop Prediction	No. of Cases for Classification	Predicted Group Membership 1	2
Group In Program	1	48	123	88 71.5%	35 28.5%
Group Left Program	2	34	82	32 39.0%	50 61.0%

Percent of "grouped" cases correctly classified: 67.32%

Classification Results - Without SES

Actual Group		No. of Cases to Develop Prediction	No. of Cases for Classification	Predicted Group Membership 1	2
Group In Program	1	108	123	107 87.0%	16 13.0%
Group Left Program	2	70	82	50 61.0%	32 39.0%

Percent of "grouped" cases correctly classified: 67.80%

As shown in Table 12 the percent of "grouped" cases correctly classified does not change when SES in added to the equation. However, the addition of the SES predictor variable does have an effect on the structure of the discriminant function.

The canonical discriminant function coefficients presented in Table 13 reveal that when SES is added to the discriminant equation, the stepwise procedure adds the predictor variable, grade point average.

TABLE 13

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS FOR THE ANALYSIS OF STAYED-IN/LEFT-PROGRAM STUDENTS ADDING SOCIOECONOMIC STATUS AS A VARIABLE

VARIABLE	FUNCTION 1
Creative Thinking	0.71306
Parent Nominations	-0.57295
Socioeconomic Status	0.42767
Reading	-0.37401
Mathematics	0.34114
Sex of Students	0.23846
Teacher Nominations	-0.22996
Grade Point Average	0.20932

As can be seen from Table 13 the largest contributor to the discriminant function is creative thinking. This represents a change in the order of the canonical discriminant function coefficients. When SES is added, parent nominations and creative thinking reverse order. Teacher nominations which were third, drops to the seventh position and socioeconomic status becomes third. Reading, mathematics and sex of the student remain in the fourth, fifth and sixth positions respectively followed by teacher nominations and grade point average.

SUMMARY AND DISCUSSION

In a school district where the population is predominantly Black and disadvantaged, it is important to look critically at selection procedures for any special programs. In Washington, D.C., identification of the Gifted and Talented was based on multiple criteria which included reading and mathematics achievement test scores, creativity test scores and nominations by peers, parents and teachers.

To determine which factors contribute most to differentiating students who are selected for the program from those who are not selected, and to determine which factors contribute most to differentiating students who remain in the program from those who do not, discriminant analyses were performed. The authors were also interested in the effects of socioeconomic status, so this variable was included in some of the analyses.

Results of the first analysis, comparing students who were selected to those who were not, without considering the effect of socioeconomic status, showed that the highest contributor to the discriminant function was total nominations (peer, parent and teacher). The next three contributing variables in descending order were peer nominations, mathematics and parent nominations.

Adding socioeconomic status as a variable, there was no change in the top discriminant coefficient. It remained as total nominations. The same three predictor variables followed but the order was changed between parent and peer nominations. Socioeconomic status did not play a very important part in the selection process but its presence did influence the structure of the discriminant function.

The analysis comparing students who stayed in the program with those who did not, showed that the category, total nominations, still was the predictor variable contributing most to the function. However, it was

followed by reading, creative thinking and mathematics. When socioeconomic status was added as a variable, a completely different picture emerged. The variable contributing the most to the difference was creative thinking, followed by parent nominations, socioeconomic status and reading.

The following conclusions might be drawn from this study. (1) Nominations by peers, parents and teachers have a large effect on discriminating between students who are selected to participate in the gifted/talented program and those who are not. (2) Socioeconomic status does not contribute extensively to the factors which discriminate students who are selected to participate in the gifted/talented program and those who are not. (3) The category, nominations, retains a high place in differentiating students who remain in the program from those who do not, but other important variables are reading, creative thinking and mathematics. (4) Socioeconomic status contributes more heavily to discrimating students who stay in the program from those who do not. It is one of the top four discriminant variables along with creative thinking, parent nominations and reading. The last two conclusions must be considered with caution since the number of research participants was small, the canonical correlation was low, and the Wilks' Lambda was large. However, the trends are sufficient to suggest the following implications.

In terms of identification these analyses provide the basis for examining the change in the discriminating effects when a modified identification procedure is used. It also provides a basis for structuring training for program staff as it relates to instruction for students who exhibit profiles that parallel those of the students in this study who were identified as gifted but did not remain in the program.

Baldwin Identification Matrix (BIM)

ADAPTED FOR USE BY: DATE

STUDENT SCHOOL

AGE GRADE 2 SEX F SCHOOL DISTRICT:

ASSESSMENT ITEMS	SCORES 5	4	3	2	1	B-NA
1. PMT	51	47.9	44.6	41.3	38	
			43 ✓			
2. PRT	45	42.5	40.5	38.5	36.5	
			40 ✓			
3. CTBS - Computation	52	48.6	45.4	42.2	39	
				43 ✓		
4. CTBS - Language (Reading)	74	67.4	60.6	53.8	47	
	73 ✓					
5. Creativity Task	47	40.64	34.26	27.88	21.5	
					23 ✓	
6. Grades	E		VG		G	
			✓			
7. Nominations			✓			
8.						
9.						
10.						
11.						
COLUMN TALLY OF CHECKS	1	0	4	1	1	
WEIGHT	x 5	x 4	x 3	x 2	x 1	
ADD ACROSS	5 +	0 +	12 +	2 +	1	= 20
TOTAL SCORE	20					OVER

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APPENDIX D

COURSE EVALUATION QUESTIONS AND RESULTS

RESULTS OF COURSE EVALUATION QUESTIONNAIRE

The instruction for answering the questionnaire was, "Check the appropriate box to the right of the question using the scale 1-5, 5 = high, 1 = low."

	5	4	3	2	1
1. Were the objectives of this course clear?	15	2	1	0	0
2. Were the objectives of this course achieved?	12	6	0	0	0
3. Were the concepts presented in such a way that they were easily understood?	13	5	0	0	0
*4. How would you rate the instructor(s) for this course?	8	1	1	0	0
Totals	48	14	2	0	0
Percents	75.00	21.88	3.73	0	0

* The totals for this question represent responses from 10 of the 18 participants.

APPENDIX E

STUDENT RESULTS ON THE CTBS
READING AND MATHEMATICS SCALES

RESULTS OF THE CTBS READING AND
MATHEMATICS SCALES BY GRADE

GRADE 1

Variable	Number of Cases	Mean E.S.S.	Standard Deviation	Grade Equivalent	Percentile
Reading Pretest*	25	266	33.64	1.6	87
Reading Posttest	25	296	27.69	2.0	75
Mathematics Pretest*	25	262	23.67	1.7	38
Mathematics Posttest	25	294	28.49	2.4	33

GRADE 2

Variable	Number of Cases	Mean E.S.S.	Standard Deviation	Grade Equivalent	Percentile
Reading Pretest*	19	338	41.66	2.9	76
Reading Posttest	19	383	29.22	3.8	80
Mathematics Pretest*	19	313	28.17	2.8	64
Mathematics Posttest	19	352	30.58	3.5	83

*Based on pretest dates of December, 1980 through May, 1981, so this analysis covers a five month span.

RESULTS OF THE CTBS READING AND
MATHEMATICS SCALES BY GRADE
(continued)

GRADE 3

Variable	Number of Cases	Mean E.S.S.	Standard Deviation	Grade Equivalent	Percentile
Reading Pretest*	24	364	61.84	3.4	49
Reading Posttest	24	435	80.60	5.1	77
Mathematics Pretest*	24	352	55.19	3.5	54
Mathematics Posttest	24	415	45.27	5.3	81

GRADE 4

Variable	Number of Cases	Mean E.S.S.	Standard Deviation	Grade Equivalent	Percentile
Reading Pretest*	22	431	55.36	5.0	69
Reading Posttest	22	464	48.44	5.9	69
Mathematics Pretest*	22	419	39.39	5.3	70
Mathematics Posttest	22	439	39.40	5.8	76

*Based on pretest dates of December, 1980 through May, 1981, so this analysis covers a five month span.

RESULTS OF THE CTBS READING AND
MATHEMATICS SCALES BY GRADE
(continued)

GRADE 5

Variable	Number of Cases	Mean E.S.S.	Standard Deviation	Grade Equivalent	Percentile
Reading Pretest*	31	467	52.10	6.0	61
Reading Posttest	31	494	52.19	7.0	66
Mathematics Pretest*	31	444	44.56	6.0	62
Mathematics Posttest	31	485	46.99	6.6	76

GRADE 6

Variable	Number of Cases	Mean E.S.S.	Standard Deviation	Grade Equivalent	Percentile
Reading Pretest*	4	498	20.506	6.6	58
Reading Posttest	4	506	79.77	7.4	58
Mathematics Pretest*	4	496	38.79	7.8	58
Mathematics Posttest	4	525	29.87	8.8	77

*Based on pretest dates of December, 1980 through May, 1981, so this analysis covers a five month span.

RESULTS OF THE CTBS READING AND
MATHEMATICS SCALES BY GRADE
(continued)

ALL GRADES

Variable	Number of Cases	Mean E.S.S.	Standard Deviation	Grade Equivalent	Percentile
Reading Pretest*	125	382	90.03	3.8	N/A
Reading Posttest	125	421	89.28	4.7	N/A
Mathematics Pretest*	125	367	82.35	3.8	N/A
Mathematics Posttest	125	406	81.55	5.0	N/A

*Based on pretest dates of December, 1980 through May, 1981, so this analysis covers a five month span.